- (b) transfecting said progenitor cells with DNA encoding a selectable marker and an externally regulatable growth-promoting protein; and
- second surface and in a second serum-free growth medium that permits attachment and proliferation, wherein the second serum-free growth medium comprises FGF-2, EGF and PDGF, and therefrom producing a conditionally-immortalized human mesencephalon cells in which the growth-promoting protein is regulated by an external factor, such that suppression of the growth promoting protein results in differentiation of the cell into a neuron.
- 6. (Amended twice) A conditionally-immortalized human mesencephalon neural progenitor cell capable of differentiation into neurons, wherein the cell is transfected with DNA encoding a growth-promoting protein that is regulated by an external factor, such that suppression of the growth-promoting protein results in differentiation of the cell into a neuron, and wherein the cell is polygonal and grows as an adherent monolayer.
- 9. (Amended) A method for producing a neuron, comprising culturing a cell produced according to claim 1 in the presence of at least one differentiating agent under conditions that inhibit expression of the growth-promoting gene.
- 25. (Amended) The method of claim 9, wherein the differentiating agent comprises the combination of forskolin, GDNF and CNTF.
- 26. (Amended) The method of claim 9, wherein the differentiating agent comprises the combination of forskolin, GDNF, CNTF, IGF-1 and BDNF.

Please add the following new claims:

27. (New) The method of claim 9 wherein said differentiating agent comprises GDNF.